TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
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PRODUCT EVALUATION Effective Date: June 1, 2013
RC-377

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation in **May 2014.***

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

EPS Foam Core Roof Panels, manufactured by:

Metals USA Building Products
7815 American Way
Groveland, FL 34736
Telephone: (352) 757-7766

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the product evaluation and with design drawings that are referenced in this evaluation report.

PRODUCT DESCRIPTION

General: The EPS Foam Core Composite Roof Panels are laminated sandwich panels consisting of aluminum facings adhered to both faces of an expanded polystyrene (EPS) foam plastic core. The panels are available in a nominal thickness of 3", 4" and 6" with a weight of 0.90, 0.97 and 1.11 psf respectively. The panels are 48" wide and come in different lengths up to 40 feet (shipping lengths). The longitudinal edges of the panels are designed such that each panel interlocks with the adjacent panel or with a flashing/termination extrusion.

Material: The panel core material is 1.0 pcf (16.0 kg/m^3) nominal density, Type I, or 1.5 pcf Type II nominal expanded polystyrene foam plastic board.

The panel facing material on both sides of the panel is 3105-H254 aluminum with a base metal thickness of 0.024" or 0.032" depending on engineering requirements.

The adhesive utilized to bond the facings to the core is MOR AD652, Rohm & Haas, 5040d/5050d-Ashland adhesive manufactured by Ashland.

Product Identification: Each EPS Foam Core Roof Panels are identified by a label bearing the company name (Metals USA Building Products) and address, the product name, the panel dimensions, the name of the inspection agency and a statement indicating "For Patio Use Only."

LIMITATIONS

General Requirements: This report is for the panels themselves, the structural adequacy of the supporting structure(s) must be evaluated separately.

Roof Slope: The roof panels shall be installed such that they have a minimum roof slope of 1/4" per foot.
D**esign Wind Speeds:** The design wind speeds that these panels have been evaluated for are 110 mph, 120 mph and 130 mph, 3-sec gust, Exposure C, using ASCE 7-05.

Construction: The panels are valid for use in outdoor patio construction only.

INSTALLLATION INSTRUCTIONS

Approved Drawings: The EPS Foam Core roof panels shall be installed in accordance with EPS Foam Core Composite Roof Panel drawing, Drawing No. 12-MEU-02, sheet 1 of 1, dated November 5, 2012, signed and sealed by Frank L. Bennardo, P.E. on November 5, 2012. The stated drawings will be referred to as approved drawings in this report. A copy of the approved drawings shall be available at the job site.

Design and Installation Requirements: Metals USA Building Products EPS Foam Core Roof Panels shall be fabricated, identified and erected in accordance with this report, the approved construction documents and the applicable building codes. In the event of a conflict between manufacturer's published installation instructions and this report, this report shall govern. The approved construction documents shall be available at all times on the jobsite during installation.

Structures built using the Metals USA Building Products EPS Foam Core Roof Panels shall be designed and inspected by a Texas licensed professional engineer appointed as a qualified windstorm engineer. The approved drawings provide allowable roof spans and specifications on minimum connection requirements. Requirements for the design of the Metals USA Building EPS Foam Core Roof Panels shall be based on the tables and details specified on the approved drawings. Design drawings shall be sealed and dated by a Texas licensed engineer. The design drawings shall reference the appropriate edition of the wind load standard (ASCE 7) used based on the current building specifications adopted by the Texas Department of Insurance. The basic wind speed and the exposure category used for the design shall also be referenced. The existing site conditions shall be carefully evaluated and any deviations from the approved drawings shall be designed by the engineer. The engineer shall consider additional loading requirements on the roof and host structure.

Panel Span: The allowable panel spans are noted on the approved drawings.

Panel Connection: An infinite number of panels may be interlocked.

Panel Support: The panels shall be connected to the existing structure in accordance with Detail "B" of the approved drawings and shall be supported on a structural beam in accordance with Detail "C".

Wall Construction: The EPS Foam Core Roof Panels may be mounted to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete (minimum 3,000 psi)
- Hollow concrete masonry units (CMU), (minimum 1,500 psi),
- Aluminum, minimum 0.045" or thicker (see Table "C"), 6063-T6,
- Wood (minimum Southern Yellow Pine dimension lumber).

Allowable Design Pressure: The allowable design pressure is a function of the loading condition, the deflection limit and the construction and thickness of the panels Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is ±59 psf (live load or uplift loading).

Anchorage: The panels shall be anchored to the host structure and beam in accordance with the approved drawings. Anchorage of the panels shall follow the mounting details on the drawings and the fasteners specified in the minimum anchor schedule.

Note: The manufacturer's installation instructions and the approved drawings shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC); the International Building Code (IBC); and the Texas Revisions.